Table 5: Inpatient locations in Acute Care Hospitals licensed for 150 beds or less (excluding Long Term Acute Care –LTAC and Rehab)
Central Line Associated Bloodstream Infection (CLABSI)
Standardized Infection Ratio (SIR) Tables
January 1, 2008 – November 30, 2008

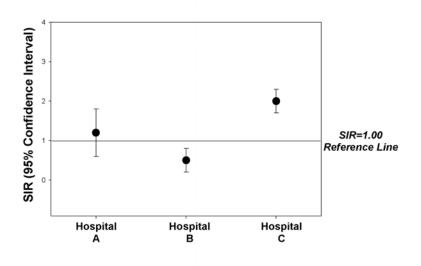
See <u>Definition of Terms</u> at the <u>Healthcare Acquired Infections Report</u> website for a more indepth explanation of Standardized Infection Ratios.

**Standardized Infection Ratio:** The Standardized Infection Ratio (SIR) is a summary measure used to compare the central line associated bloodstream infection (CLABSI) experience among a group of reported locations to that of a standard population. It is the *observed* number of infections divided by the *expected* number of infections.

For HAI reports, the standard population comes from NHSN data reported from all hospitals using the system. "Expected" \*is based on historical data for those procedures at the national level.

#### **Confidence Intervals (CIs)**

Because we can never obtain a hospital's true "population" data (e.g. all patients for all time), we use statistical procedures to "estimate" various measurements using "sample" data. Since estimates have "variability" we use 95% confidence limits (or intervals) to describe the variability around the estimate. These limits (or intervals) give us the range within which the TRUE value will fall 95% of the time, given that the sample data are reflective of the true population. Below is a graphical example of what CIs would look like if they were in graph form.



**Graph Interpretation:** 

**Hospital A**: If the 95% confidence interval <u>crosses over the reference line of 1.0</u>, we conclude that the hospital's infection rate is similar (not significantly different) from "expected" (predicted).

**Hospital B**: If the 95% confidence interval <u>falls completely below the reference line of 1.0</u>, we conclude that the hospital's infection rate is significantly lower than "expected" (predicted).

**Hospital C:** If the 95% confidence interval <u>falls completely above the reference line of 1.0</u>, we conclude that the hospital's infection rate is significantly higher than "expected" (predicted).

All conclusions are based on the assumption that the hospital's patient population is similar to the NHSN pooled patient population.

\*Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.

#### Statewide

**Location: Surgical Inpatient Ward** 

Hospital	Observed No. Of CLABSI	No. of Central Line Days	Statistically "Expected" No. of	Comparison to Standard Population SIR = 1 (Observed = "Expected")				
	CLABSI	Line Days	CLABSI <sup>‡</sup>	Hospital SIR = Observed	95% Confidence Interval (CI)		Statistical Interpretation <sup>†</sup>	
				"Expected"	Lower	Upper		
Carolina								
Pines								
Regional								
Medical								
Center	2	431	0.6896	2.90	0.35 -	10.48	Not Different	
Kershaw								
County								
Medical								
Center	1	703	1.1248	0.89	0.02 -	4.95	Not Different	
Patewood								
Memorial								
Hospital	0	29	0.0464	0.00	0.00 -	79.50	Not Different	

- SC Hospital SIR Statistical Interpretation
  - o Similar = Statistically not different than the standard population
  - o Lower = Statistically lower than the standard population
  - Higher = Statistically higher than the standard population
- <sup>‡</sup> Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.

#### Statewide

**Location: Medical Inpatient Ward** 

Hospital	Observed No. Of CLABSI	No. of Central	Statistically "Expected"	Comparison to Standard Population SIR = 1 (Observed = "Expected")				
	CLABSI	Line Days	No. of CLABSI <sup>‡</sup>	Hospital SIR = Observed	95% Confidence Interval (CI)		Statistical Interpretation <sup>†</sup>	
				"Expected"	Lower	Upper		
Carolina								
Pines								
Regional								
Medical								
Center	5	968	1.7	2.87	0.93 -	6.70	Not Different	
Charleston								
Memorial								
Hospital	8	925	1.7	4.80	2.07 -	9.47	Higher	
Colleton								
Medical								
Center	2	1902	3.4	0.58	0.07 -	2.11	Not Different	
Kershaw								
County								
Medical	_							
Center	2	933	1.7	1.19	0.14 -	4.30	Not Different	
Lake City								
Communit			_					
y Hospital	0	65	0.1	0.00	0.00 -	31.53	Not Different	
Wallace								
Thomson								
Hospital	0	84	0.2	0.00	0.00 -	24.40	Not Different	

<sup>†</sup> SC Hospital SIR Statistical Interpretation

- o Similar = Statistically not different than the standard population
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- Higher = Statistically higher than the standard population

Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.

#### Statewide

**Location: Step Down Unit** 

Hospital	Observed No. Of	No. of Central	Statistically "Expected"	Comparison to Standard Population SIR = 1 (Observed = "Expected")				
	CLABSI	Line Days*	No. of CLABSI <sup>‡</sup>	Hospital SIR = Observed "Expected"	95% Confide Interval Lower		Statistical Interpretation <sup>†</sup>	
Carolina								
Pines								
Regional								
Medical		201	0.7	1 40	0.04	7.00	N. Dicc	
Center	1	291	0.7	1.43	0.04 -	7.98	Not Different	
East								
Cooper								
Regional								
Medical	0	570	1 /	0.00	0.00	2.70	N-4 D:664	
Center	0	570	1.4	0.00	0.00 -	2.70	Not Different	
Laurens								
County Healthcare								
System	0	258	0.6	0.00	0.00 -	5.96	Not Different	
St. Francis		230	3.0	0.00	0.00	3.70	110t Different	
- Eastside	*	1	*	*	* _	*	*	
Upstate		_						
Carolina								
Medical								
Center	0	236	0.6	0.00	0.00 -	6.51	Not Different	

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  - o Higher = Statistically higher than the standard population
- ‡ Please note that the "expected" number of infections does not mean that you expect to get an infection when you go into the hospital for surgery. The goal is for the hospital is to prevent all HAIs.

*	Too few central line days. Reporting on too few procedures is a risk to patient confidentiality. If there are twenty-five (25) or fewer central line days, the report for the number of infections will be deferred until there are more central line days.

### Statewide

### **Location: Medical/Surgical Inpatient Ward**

Hospital	Observed No. Of CLABSI	No. of Central	Statistically "Expected" No. of	Comparison to Standard Population SIR = 1 (Observed = "Expected")				
	CLABSI	Line Days*	CLABSI <sup>‡</sup>	Hospital SIR = Observed "Expected"	95% Confide Interval Lower		Statistical Interpretation <sup>†</sup>	
Abbeville								
Area								
Medical								
Center	0	52	0.1	0.00	0.00 -	54.57	Not Different	
Allendale								
County		•		• •	0.04	4.4.0	27 2100	
Hospital	1	296	0.4	2.60	0.06 -	14.48	Not Different	
Cannon								
Memorial	1	158	0.2	4.87	0.12 -	27.13	Not Different	
Hospital Chesterfiel	1	136	0.2	4.67	0.12 -	27.13	Not Different	
d General								
Hospital	0	129	0.2	0.00	0.00 -	22.00	Not Different	
Coastal		12)	0.2	0.00	0.00	22.00	TVOL DITICION	
Carolina								
Medical								
Center	0	78	0.1	0.00	0.00 -	36.38	Not Different	
Colleton								
Medical								
Center	1	1307	1.7	0.59	0.01 -	3.28	Not Different	
East								
Cooper								
Regional								
Medical		015	1.2	0.04	0.02	4	NI / Dicc	
Center	1	917	1.2	0.84	0.02 -	4.67	Not Different	
Edgefield								
County Hospital	*	0	*	*	* _	*	*	
nospitai	*	1 0	*	*		T	*	

Hospital	Observed No. Of	No. of Central	Statistically "Expected"	Comparison to Standard Population SIR = 1 (Observed = "Expected")				
	CLABSI	Line Days*	No. of CLABSI <sup>‡</sup>	Hospital SIR = Observed	95% Confiden	ice	Statistical Interpretation <sup>†</sup>	
				"Expected"	Lower	Upper		
Fairfield								
Memorial					.1.	, t.		
Hospital	*	0	*	*	* _	*	*	
Georgetow								
n Memorial								
Hospital	5	774	1.0	4.97	1.61 -	11.60	Higher	
Greer	3	774	1.0	4.57	1.01 -	11.00	Trigher	
Memorial								
Hospital	1	426	0.6	1.81	0.05 -	10.06	Not Different	
Hampton		.20	0.0	1,01	0.00	10,00	T VOU D'ALLOTOLLO	
Regional								
Medical								
Center	0	215	0.3	0.00	0.00 -	13.20	Not Different	
Hillcrest								
Memorial								
Hospital	0	631	0.8	0.00	0.00 -	4.50	Not Different	
Hilton								
Head								
Regional								
Medical	1	1107	1.5	0.60	0.02	2.77	N Dicc	
Center	1	1137	1.5	0.68	0.02 -	3.77	Not Different	
Laurens								
County Healthcare								
System	2	469	0.6	3 28	0.40 -	11.85	Not Different	
Loris	2	407	0.0	3.20	0.40	11.03	140t Billelent	
Communit								
y Hospital	0	373	0.5	0.00	0.00 -	7.61	Not Different	
Marion								
County								
Medical								
Center	0	544	0.7	0.00	0.00 -	5.22	Not Different	
Marlboro								
Park								
Hospital	0	124	0.2	0.00	0.00 -	22.88	Not Different	
McLeod								
Medical								
Center -	^	471	0.0	0.00	0.00	<i>c</i> 02	Not Diec	
Darlington	0	471	0.6	0.00	0.00 -	6.02	Not Different	

Hospital	Observed No. Of	No. of Central	Statistically "Expected"	Comparison to Standard Population SIR = 1 (Observed = "Expected")				
	CLABSI	Line Days*	No. of CLABSI <sup>‡</sup>	Hospital SIR = Observed "Expected"	95% Confide Interval Lower	nce	Statistical Interpretation <sup>†</sup>	
McLeod						• •		
Medical								
Center -								
Dillon	0	193	0.3	0.00	0.00 -	14.70	Not Different	
Newberry								
County								
Memorial								
Hospital	0	248	0.3	0.00	0.00 -	11.44	Not Different	
Palmetto								
Baptist								
Medical								
Center -								
Easley	2	625	0.8	2.46	0.30 -	8.89	Not Different	
Providence								
Hospital								
Northeast	0	654	0.9	0.00	0.00 -	4.34	Not Different	
Summervil								
le Medical	_							
Center	0	1438	1.9	0.00	0.00 -	1.97	Not Different	
Upstate								
Carolina								
Medical								
Center	1	314	0.4	2.45	0.06 -	13.65	Not Different	
Waccama								
W								
Communit		1070	4 4	2.10	0.45	( ) (	NI / D'CC	
y Hospital	3	1060	1.4	2.18	0.45 -	6.36	Not Different	
Wallace								
Thomson		250	0.2	0.00	0.00	10.00	Not Different	
Hospital	0	259	0.3	0.00	0.00 -	10.96	Not Different	
Williamsb								
urg Dogianal								
Regional	*	1 5	*	*	* _	*	*	
Hospital	*	15	*	*	т -	<b>ጥ</b>	*	

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	there are more central line days.							